Union Calendar No. 277

110TH CONGRESS
1ST SESSION

H. R. 2406

[Report No. 110–451]

To authorize the National Institute of Standards and Technology to increase its efforts in support of the integration of the healthcare information enterprise in the United States.

IN THE HOUSE OF REPRESENTATIVES

MAY 21, 2007

Mr. GORDON of Tennessee introduced the following bill; which was referred to the Committee on Science and Technology

NOVEMBER 15, 2007

Additional sponsors: Mr. GINGREY, Mr. LIPINSKI, Mr. CARNAHAN, Mr. WU, Mr. MATHESON, Ms. BORDALLO, Mr. COHEN, Mr. CHANDLER, Mr. WILSON of Ohio, Mr. COSTELLO, Ms. HOOLEY, Ms. EDDIE BERNICE JOHNSON of Texas, Ms. RICHARDSON, Mr. HILL, Mr. MCNERNEY, Mr. MITCHELL, Ms. WOOLSEY, Ms. GIFFORDS, Mr. MILLER of North Carolina, Mr. ROTHMAN, Mr. LAMPSON, Mr. BAIRD, Mr. ROSS, Mr. KANJORSKI, Mr. MELANCON, Mr. TOWNS, Mr. UDALL of Colorado, and Mr. SESTAK

NOVEMBER 15, 2007

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on May 21, 2007]

A BILL

To authorize the National Institute of Standards and Technology to increase its efforts in support of the integration

of the healthcare information enterprise in the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Healthcare Information Technology Enterprise Integration Act".

SEC. 2. FINDINGS.

Congress finds the following:

(1) The National Institute of Standards and Technology, because of the electronic commerce, information technology and security expertise in its laboratories and the healthcare component of the Malcolm Baldrige National Quality Award, and its long history of working with the information technology and healthcare industries, is well equipped to complement the healthcare information technology implementation efforts as established by Executive Order 13335 of April 27, 2004, by addressing the technical challenges posed by healthcare information enterprise integration.

(2) Therefore, it is in the national interest for the National Institute of Standards and Technology to accelerate its efforts—

(A) to participate in the development of technical standards, standards conformance tests,

and enterprise integration processes that are necessary to increase efficiency and quality of care, and lower costs in the healthcare industry; and

(B) ensuring that all components of the United States healthcare infrastructure can be a part of an electronic information network that is reliable, interoperable, and secure.

SEC. 3. HEALTHCARE INFORMATION ENTERPRISE INTEGRATION INITIATIVE.

(a) ESTABLISHMENT.—The Director of the National Institute of Standards and Technology shall establish an initiative for advancing healthcare information enterprise integration within the United States. In carrying out this section, the Director shall involve various units of the National Institute of Standards and Technology, including its laboratories and the Malcolm Baldrige National Quality Program. This initiative shall build upon ongoing efforts of the National Institute of Standards and Technology, the private sector, and other Federal agencies, shall involve consortia that include government and industry, and shall be designed to permit healthcare information enterprise integration. These efforts shall complement ongoing activities occurring under Executive Order 13335 of April 27, 2004.

(b) TECHNICAL ACTIVITIES.—In order to carry out this section, the Director may focus on—

(1) information technology standards and interoperability analysis, which may include the development of technical testbeds;

(2) supporting the establishment of conformance testing infrastructure, including software conformance and certification;

(3) security;

(4) medical device communication;

(5) supporting the provisioning of technical architecture products for management and retrieval; and

(6) information management including electronic health records management, health information usability, and access and decision support.

(c) OTHER ACTIVITIES.—The Director may assist healthcare representatives and organizations and Federal agencies in the development of technical roadmaps that identify the remaining steps needed to ensure that technical standards for application protocols, interoperability, data integrity, and security, as well as the corollary conformance test protocols, will be in place. These roadmaps shall rely upon voluntary consensus standards where possible consistent with Federal technology transfer laws.

(d) PLANS AND REPORTS.—Not later than 90 days after the date of enactment of this Act, and annually there-

after, the Director shall transmit a report to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the activities of the National Institute of Standards and Technology under this section.

SEC. 4. FEDERAL HEALTHCARE INFORMATION TECHNOLOGY SYSTEMS AND INFRASTRUCTURE.

(a) GUIDELINES AND STANDARDS.—Not later than 12 months after the date of enactment of this Act, the Director of the National Institute of Standards and Technology, in consultation with industry and appropriate Federal agencies, shall report on development of technology-neutral information technology infrastructure guidelines and standards, or the adoption of existing technology-neutral industry guidelines and private sector standards, for use by Federal agencies to enable those agencies to effectively select and utilize healthcare information technologies in a manner that is—

(1) sufficiently secure to meet the needs of those agencies (as is consistent with the Computer Security Act of 1987, as amended, section 225 of the Homeland Security Act of 2002, and title III of the E-Government Act of 2002), their transaction partners, and the general public;

(2) interoperable, to the maximum extent possible; and

(3) inclusive of ongoing Federal efforts that provide technical expertise to harmonize existing standards and assist in the development of interoperability specifications.

(b) ELEMENTS.—The guidelines and standards developed under subsection (a) shall—

(1) promote the use by Federal agencies of commercially available products that incorporate the guidelines and standards developed under subsection (a);

(2) develop uniform testing procedures suitable for determining the conformance of commercially available and Federal healthcare information technology products with the guidelines and standards;

(3) support and promote the testing of electronic healthcare information technologies utilized by Federal agencies;

(4) provide protection and security profiles;

(5) establish a core set of interoperability specifications in transactions between Federal agencies and their transaction partners; and

(6) include validation criteria to enable Federal agencies to select healthcare information technologies appropriate to their needs.

(c) REPORTS.—Not later than 18 months after the date of enactment of this Act, and annually thereafter, the Director shall transmit to the Congress a report that includes a description and analysis of—

(1) the level of interoperability and security of technologies for sharing healthcare information among Federal agencies; and

(2) the problems Federal agencies are having with, and the progress such agencies are making toward, ensuring interoperable and secure healthcare information systems and electronic healthcare records.

SEC. 5. RESEARCH AND DEVELOPMENT PROGRAMS.

(a) HEALTHCARE INFORMATION ENTERPRISE INTEGRATION RESEARCH CENTERS.—

(1) IN GENERAL.—The Director of the National Institute of Standards and Technology, in consultation the Director of the National Science Foundation and other appropriate Federal agencies, shall establish a program of assistance to institutions of higher education (or consortia thereof which may include nonprofit entities and Federal Government labora-

tories) to establish multidisciplinary Centers for Healthcare Information Enterprise Integration.

(2) REVIEW; COMPETITION.—Grants shall be awarded under this subsection on a merit-reviewed, competitive basis.

(3) PURPOSE.—The purposes of the Centers shall be—

(A) to generate innovative approaches to healthcare information enterprise integration by conducting cutting-edge, multidisciplinary research on the systems challenges to healthcare delivery; and

(B) the development and use of information technologies and other complementary fields.

(4) RESEARCH AREAS.—Research areas may include—

(A) the interfaces between human information and communications technology systems;

(B) voice-recognition systems;

(C) software that improves interoperability and connectivity among systems;

(D) software dependability in systems critical to healthcare delivery;

(E) measurement of the impact of information technologies on the quality and productivity of healthcare;

(F) healthcare information enterprise management; and

(G) information technology security and integrity.

(5) APPLICATIONS.—An institution of higher education (or a consortium thereof) seeking funding under this subsection shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of—

(A) the research projects that will be undertaken by the Center and the respective contributions of the participating entities;

(B) how the Center will promote active collaboration among scientists and engineers from different disciplines, such as information technology, biologic sciences, management, social sciences, and other appropriate disciplines;

(C) technology transfer activities to demonstrate and diffuse the research results, technologies, and knowledge; and

(D) how the Center will contribute to the education and training of researchers and other professionals in fields relevant to healthcare information enterprise integration.

(b) NATIONAL INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM.—The National High-Performance Computing Program established by section 101 of the High-Performance Computing Act of 1991 (15 U.S.C. 5511) shall coordinate Federal research and development programs related to the development and deployment of health information technology, including activities related to—

(1) computer infrastructure;

(2) data security;

(3) development of large-scale, distributed, reliable computing systems;

(4) wired, wireless, and hybrid high-speed networking;

(5) development of software and software-intensive systems;

(6) human-computer interaction and information management technologies; and

(7) the social and economic implications of information technology.

(c) STRATEGIC PLAN FOR HEALTHCARE TECHNOLOGIES AND CLASSIFICATION.—

(1) IN GENERAL.—The Director of the National Institute of Standards and Technology, in consultation with the Director of the National Science Foundation, not later than 90 days after the date of enactment of this Act, shall establish a task force whose membership includes representatives of other Federal agencies and industry groups (such as the American Health Information Management Association and the American Medical Informatics Association) to develop a strategic plan including recommendations for—

(A) the development, adoption, and maintenance of terminologies and classifications;

(B) gaining commitment of terminology and classification stakeholders (such as developers, end users, and other service and technology suppliers) to principles and guidelines for open and transparent processes to enable cost-effective interoperability and complete and accurate information;

(C) the design of a centralized authority or governance model, including principles for its operation and funding scenarios;

(D) United States participation in the International Health Terminology Standards Development Organization; and

(E) any other issues identified by the task force.

(2) TASK FORCE REPORT.—The task force shall report its findings and recommendations to the Committee on Science and Technology of the House of Representatives not later than 18 months after the date of enactment of this Act. The task force shall terminate after transmitting such report.

(3) FEDERAL ADVISORY COMMITTEE ACT.—The task force established under this subsection shall not be subject to the Federal Advisory Committee Act (5 U.S.C. App.).

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Director of the National Institute of Standards and Technology for carrying out this Act $8,000,000 for each of the fiscal years 2009 and 2010, to be derived from amounts authorized under section 3001 of Public Law 110–69.

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